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RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/770,693

DATE: 02/08/2001
 TIME: 12:26:28

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3 <110> APPLICANT: Beer, Steven V.
 4 Bauer, David W.
 6 <120> TITLE OF INVENTION: OOMYCETE-RESISTANT TRANSGENIC PLANTS BY VIRTUE OF
 7 PATHOGEN-INDUCED EXPRESSION OF A HETEROLOGOUS
 8 HYPERSENSITIVE RESPONSE ELICITOR
 10 <130> FILE REFERENCE: 19603/2501
 C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/770,693
 C--> 13 <141> CURRENT FILING DATE: 2001-01-26
 15 <150> PRIOR APPLICATION NUMBER: 60/178,565
 16 <151> PRIOR FILING DATE: 2000-01-26
 18 <160> NUMBER OF SEQ ID NOS: 26
 20 <170> SOFTWARE: PatentIn Ver. 2.1
 22 <210> SEQ ID NO: 1
 23 <211> LENGTH: 338
 24 <212> TYPE: PRT
 25 <213> ORGANISM: Erwinia chrysanthemi
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 34 Leu Gly Ser Ser Val Asp Lys Leu Ser Ser Thr Ile Asp Lys Leu Thr
 35 35 40 45
 37 Ser Ala Leu Thr Ser Met Met Phe Gly Gly Ala Leu Ala Gln Gly Leu
 38 50 55 60
 40 Gly Ala Ser Ser Lys Gly Leu Gly Met Ser Asn Gln Leu Gly Gln Ser
 41 65 70 75 80
 43 Phe Gly Asn Gly Ala Gln Gly Ala Ser Asn Leu Leu Ser Val Pro Lys
 44 85 90 95
 46 Ser Gly Gly Asp Ala Leu Ser Lys Met Phe Asp Lys Ala Leu Asp Asp
 47 100 105 110
 49 Leu Leu Gly His Asp Thr Val Thr Lys Leu Thr Asn Gln Ser Asn Gln
 50 115 120 125
 52 Leu Ala Asn Ser Met Leu Asn Ala Ser Gln Met Thr Gln Gly Asn Met
 53 130 135 140
 55 Asn Ala Phe Gly Ser Gly Val Asn Asn Ala Leu Ser Ser Ile Leu Gly
 56 145 150 155 160
 58 Asn Gly Leu Gly Gln Ser Met Ser Gly Phe Ser Gln Pro Ser Leu Gly
 59 165 170 175
 61 Ala Gly Gly Leu Gln Gly Leu Ser Gly Ala Gly Ala Phe Asn Gln Leu
 62 180 185 190
 64 Gly Asn Ala Ile Gly Met Gly Val Gly Gln Asn Ala Ala Leu Ser Ala
 65 195 200 205
 67 Leu Ser Asn Val Ser Thr His Val Asp Gly Asn Asn Arg His Phe Val
 68 210 215 220
 70 Asp Lys Glu Asp Arg Gly Met Ala Lys Glu Ile Gly Gln Phe Met Asp
 71 225 230 235 240

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73 Gln Tyr Pro Glu Ile Phe Gly Lys Pro Glu Tyr Gln Lys Asp Gly Trp
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76 Ser Ser Pro Lys Thr Asp Asp Lys Ser Trp Ala Lys Ala Leu Ser Lys
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79 Pro Asp Asp Asp Gly Met Thr Gly Ala Ser Met Asp Lys Phe Arg Gln
80           275                280                285
82 Ala Met Gly Met Ile Lys Ser Ala Val Ala Gly Asp Thr Gly Asn Thr
83           290                295                300
85 Asn Leu Asn Leu Arg Gly Ala Gly Gly Ala Ser Leu Gly Ile Asp Ala
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103 gatctgggtat ttccagtttgg ggacacccggg cgtgaactca tgatcgagat tcacggcggg 180
104 cagcaatatac ccggcatgtt ggcaacgctg ctgcctcgct gttatcagca ggcggcaag 240
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106 ccgtcgggat ccggcagtta tccgcaggtg atcgaaagt ttgttgaact ggcggaagt 360
107 acgttgcgct cgctatccat agcaccgacg gcgcgtccgc agacagggaa cggacgcgcc 420
108 cgatcattaa gataaaggcg gcttttttta ttgcaaaacg gtaacgggtg ggaacgcttt 480
109 caccgtcggc gtcaactcag aacaagtatc catcatgatg cctacatcgg gatcgcgct 540
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117 caagctgact aa'ccagagca accaaactggc taattcaatg ctgaacgccca gccagatgac 1020
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120 gcaggcgctg agcggcgcgg gtgcattcaa ccagttgggt aatgccatcg gcatggcgct 1200
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134 gatcaccaca atattcatag aaagctgtct tgcaacctacc gtatcgcggt agataccgac 2040
135 aaaatagggc agtttttgcg tgytatccgt ggggtgttcc ggccctgacaa tcttgagttg 2100
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149 20 25 30
151 Asn Ala Gly Leu Gly Gly Asn Ser Ala Leu Gly Leu Gly Gly Gly Asn
152 35 40 45
154 Gln Asn Asp Thr Val Asn Gln Leu Ala Gly Leu Leu Thr Gly Met Met
155 50 55 60
157 Met Met Met Ser Met Met Gly Gly Gly Gly Leu Met Gly Gly Gly Leu
158 65 70 75 80
160 Gly Gly Gly Leu Gly Asn Gly Leu Gly Gly Ser Gly Gly Leu Gly Glu
161 85 90 95
163 Gly Leu Ser Asn Ala Leu Asn Asp Met Leu Gly Gly Ser Leu Asn Thr
164 100 105 110
166 Leu Gly Ser Lys Gly Gly Asn Asn Thr Thr Ser Thr Thr Asn Ser Pro
167 115 120 125
169 Leu Asp Gln Ala Leu Gly Ile Asn Ser Thr Ser Gln Asn Asp Asp Ser
170 130 135 140
172 Thr Ser Gly Thr Asp Ser Thr Ser Asp Ser Ser Asp Pro Met Gln Gln
173 145 150 155 160
175 Leu Leu Lys Met Phe Ser Glu Ile Met Gln Ser Leu Phe Gly Asp Gly
176 165 170 175
178 Gln Asp Gly Thr Gln Gly Ser Ser Ser Gly Gly Lys Gln Pro Thr Glu
179 180 185 190
181 Gly Glu Gln Asn Ala Tyr Lys Lys Gly Val Thr Asp Ala Leu Ser Gly
182 195 200 205
184 Leu Met Gly Asn Gly Leu Ser Gln Leu Leu Gly Asn Gly Gly Leu Gly
185 210 215 220
187 Gly Gly Gln Gly Gly Asn Ala Gly Thr Gly Leu Asp Gly Ser Ser Leu
188 225 230 235 240
190 Gly Gly Lys Gly Leu Gln Asn Leu Ser Gly Pro Val Asp Tyr Gln Gln
191 245 250 255
193 Leu Gly Asn Ala Val Gly Thr Gly Ile Gly Met Lys Ala Gly Ile Gln
194 260 265 270
196 Ala Leu Asn Asp Ile Gly Thr His Arg His Ser Ser Thr Arg Ser Phe
197 275 280 285
199 Val Asn Lys Gly Asp Arg Ala Met Ala Lys Glu Ile Gly Gln Phe Met
200 290 295 300
202 Asp Gln Tyr Pro Glu Val Phe Gly Lys Pro Gln Tyr Gln Lys Gly Pro

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211 Lys Ala Lys Lys Gly Met Ile Lys Arg Pro Met Ala Gly Asp Thr Gly Asn
212                               355                               360                               365
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239 ccgatgcagc agctgctgaa gatgttcagc gagataatgc aaagcctggt ttgtgatggg 600
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255 <211> LENGTH: 341
256 <212> TYPE: PRT
257 <213> ORGANISM: Pseudomonas syringae
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264 20 25 30
266 Ser Lys Ala Leu Gln Glu Val Val Val Lys Leu Ala Glu Glu Leu Met

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275 Ile Ala Ala Leu Asp Lys Leu Ile His Glu Lys Leu Gly Asp Asn Phe
276          85          90          95
278 Gly Ala Ser Ala Asp Ser Ala Ser Gly Thr Gly Gln Gln Asp Leu Met
279          100          105          110
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282          115          120          125
284 Thr Lys Gln Asp Gly Gly Thr Ser Phe Ser Glu Asp Asp Met Pro Met
285          130          135          140
287 Leu Asn Lys Ile Ala Gln Phe Met Asp Asp Asn Pro Ala Gln Phe Pro
288 145          150          155          160
290 Lys Pro Asp Ser Gly Ser Trp Val Asn Glu Leu Lys Glu Asp Asn Phe
291          165          170          175
293 Leu Asp Gly Asp Glu Thr Ala Ala Phe Arg Ser Ala Leu Asp Ile Ile
294          180          185          190
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302 Val Met Gly Asp Pro Leu Ile Asp Ala Asn Thr Gly Pro Gly Asp Ser
303 225          230          235          240
305 Gly Asn Thr Arg Gly Glu Ala Gly Gln Leu Ile Gly Glu Leu Ile Asp
306          245          250          255
308 Arg Gly Leu Gln Ser Val Leu Ala Gly Gly Gly Leu Gly Thr Pro Val
309          260          265          270
311 Asn Thr Pro Gln Thr Gly Thr Ser Ala Asn Gly Gly Gln Ser Ala Gln
312          275          280          285
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317 Thr Leu Lys Asp Ala Gly Gln Thr Gly Thr Asp Val Gln Ser Ser Ala
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328 <211> LENGTH: 1026
329 <212> TYPE: DNA
330 <213> ORGANISM: Pseudomonas syringae
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335 gtgaagctgg ccgagggaact gatgcgcaat ggccaactcg acgacagctc gccattggga 180
336 aaactgttgg ccaagtogat ggcgcgagat ggcaaggcgg gcggcggtat tgaggatgtc 240
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L:12 M:270 C: Current Application Number differs, Replaced Application Number
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date